

# Electronic Signatures

The diagram features a dark blue background with a purple gradient at the top. A jagged black silhouette of mountains spans the width of the image. Below this, a dark blue area is divided by a diagonal line. To the left of the line, the text 'Laws in untested territory' is written in white. To the right, 'Driving on unspecified technology' is written in white. A grey triangular path, filled with binary code (0s and 1s), starts from the bottom left and extends towards the top right, crossing the diagonal line. Along this path, there are four dark grey rectangular blocks, suggesting a sequence of steps or challenges.

**Laws in  
untested territory**

**Driving on  
unspecified  
technology**

# An Electronic Signature...

is just about anything:

- typing ones name
- a digital representation of a hand written name
- a voice recording of an identity and an intent

## DEFINITIONS (E-SIGN)

For purposes of this title:

- (4) *Electronic Record* —The term “electronic record” means a contract or other record created, generated, sent, communicated, received, or stored by electronic means.
- (5) *Electronic Signature* —The term “electronic signature” means an electronic sound, symbol, or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record.

# E-Sign s. 761

(Electronic Signatures in Global and National Commerce Act)

- Based on the Uniform Electronic Transactions Act (UETA)
- Federal law intended for interstate commercial transactions
  - Rushed to pass because of fear UETA uniform adoption would take too long
- Becomes the 'foundation law' for electronic signature laws of the states

Became Law on 6/30/2000

Public Law No: 106-229

# E-Sign (in a nutshell)

- Not technology specific, intentionally Technology Agnostic
- Two parties come together, and as in any contract, they agree to accept a process by which to interact
  - this allows for those electronic processes based on signatory needs 'not to be denied legal effect just because their electronic.'

# E-Sign (quoted)

## **SEC. 101. GENERAL RULE OF VALIDITY. (E-Sign)**

### **(d) RETENTION OF CONTRACTS AND RECORDS.—**

**(1) ACCURACY AND ACCESSIBILITY.**—If a statute, regulation, or other rule of law requires that a contract or other record relating to a transaction in or affecting interstate or foreign commerce be retained, that requirement is met by retaining an electronic record of the information in the contract or other record that—

- (A) accurately reflects the information set forth in the contract or other record; and
- (B) remains accessible to all persons who are entitled to access by statute, regulation, or rule of law, for the period required by such statute, regulation, or rule of law, in a form that is capable of being accurately reproduced for later reference, whether by transmission, printing, or otherwise.

# The E-Sign electronic signature theory

- Parties involved in transaction have most to benefit by ensuring transaction remain effective, so the 'electronic signature process' will be suited to their needs

# The E-Sign theory example

- Example:
  - Two parties in a contract of receiving goods agree to accept purchase orders through email. First step is to agree of process and consent to process
    - » Shipping company wants to reduce order overhead, but does not want to ship to phony PO.
    - » Receiving company wants to speed reception, but does not want to be billed incorrectly
    - » Both parties "should" put enough safeguards in signing process to protect their needs in the contractual relationship
    - » E-mail becomes the electronic document purchase order, initials at end are accepted as signature for authorizing PO. That email is accepted as a signed document .
    - » not to be denied legal effect just because it's electronic

**Weakness?**

# That is what E-Sign does -

- They agreed, its documented, it is legal contracting...
- The laws surrounding the actual "transaction" (the contract law, regulation law, etc) are not altered...
  - just setting the foundation to complete that transaction electronically is 'enabled'
- a signature shall not be denied legal effect solely upon the fact the signature is electronic
  - Still need to meet the law surrounding the transaction
  - Still need to be able to 'reproduce' the record
  - Still may need to question the entire process



# E-Sign Summary

- Technology neutral
- Scope is Interstate commerce / International
  - where no state law, e-sign enables acceptance
  - where state law, e-sign does not pre-empt, as long as state laws are compatible (in theory and technology policy) with E-Sign
- **Only enables, does not change existing laws surrounding transaction**
- A pretty simple statement - “It’s ok to conduct transactions electronically.”

# Arizona & the Transactions Act

- Arizona Electronic Transactions Act (AETA)
  - followed model UETA
    - » clarified responsibility for electronic notary
    - » added secure electronic transaction
  - Does not increase effectiveness of electronic signature
  - Does not require specific technology
    - » Only 'criteria' recommendation for securing transactions

HB 2069 Electronic Transactions Act  
44th Legislature  
1999-2000 2nd Session  
Signed 4/17/2000

# AETA (UETA for Az)

- Enables recognition of electronic signatures as a viable signature for Arizona
- Same 'Spirit' as E-Sign
  - based on UETA
  - Technology Neutral
  - Meant for commercial transactions within the state

## *Section 9. Attribution And Effect Of Electronic Record And Electronic Signature. (AETA)*

(a) An electronic record or electronic signature is attributable to a person if it was the act of the person. The act of the person may be shown in any manner, including a showing of the efficacy of any security procedure applied to determine the person to which the electronic record or electronic signature was attributable.

(b) The effect of an electronic record or electronic signature attributed to a person under subsection (a) is determined from the context and surrounding circumstances at the time of its creation, execution, or adoption, including the parties' agreement, if any, and otherwise as provided by law.

# Two similar spirits - however...

- Fundamental component of E-Sign & UETA
  - two parties agree to conduct transactions in an electronic format...
- As a participant in one of these transactions
  - where State of Arizona is one of those two parties
- Existing Electronic signature law 'for the State' to clarify use (namely technology) for the State

# Arizona Electronic Signature Statute

- ARS 41-132 enacted in 1996, revisited in 1998.
  - Applies to transactions 'with and by state agencies'
  - Technology Neutral
  - Provides criteria to meet as an acceptable technology
    - An electronic signature shall be unique to the person using it,
    - shall be capable of reliable verification, and
    - shall be linked to a record in a manner so that if the record is changed the electronic signature is invalidated
  - Acknowledges digital signature technology as an acceptable technology of electronic signature

# Arizona Electronic Signature Statute

- ARS 41-121 enacted in 1998
  - Sets responsibility with the Secretary of State to develop rules along with consultation with:
    - » the Government Information Technology Agency (GITA)
    - » Department of Administration
    - » The State Treasurer

# State... as a party to a transaction

- Still anything goes... Electronic Signatures defined by the parties
- Thus when the state is one of those parties...
  - (Just like any participant to a transaction) -->
    - » State gets a say as to "how" they are willing to conduct transactions electronically
    - » State has the authority (41-132/41-121) to use their rules for implementing and be more technology specific

# State... Implementing an e-sig in a transaction

- A 'Digital Signature' is an 'Electronic Signature'
  - » it's a subset (not all electronic signatures are created equal)
  - » it's an implementing technology (PKI)
  - » it's an indication of acceptance, not a requirement
    - i.e. it's not the only technology,  
but a well suited technology process
- Policy Review an on-going process at the State
  - Other "signing processes" under review
    - » Shared secret authorization without monetary implication
    - » PGP (Pretty Good Privacy) for initial intent of monetary implication
    - » Non state issued electronic identity as witness to intent of ownership



# State Level Summary

- UETA (AETA) enables electronic Signatures within the state
  - two parties agree to conduct transactions electronically...
  - Still Technology Neutral
- Az Electronic Signature Statute (41-132)
  - when one of the parties is the State
  - Technology neutral - but Technology Controlled
    - » further criteria for State to accept technology processes
  - policy driven - addressed through rule, policy dependent, standard adoption, and procedure implemented
- ‘Digital Signatures’ are an indication of proven technology, but infrastructure yet to be built

(more on this later)

# E-Sign, AETA, 41-132

- choose your poison

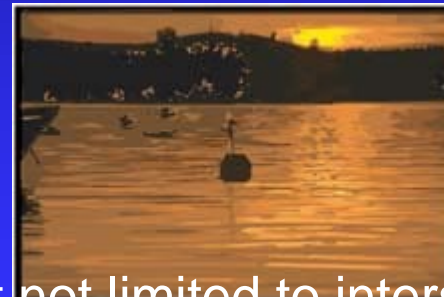
- Az Electronic Signature Statute (41-132) is the espresso...
  - only for those state government transactions



- UETA (AETA) is the extra large latte...
  - covers just about any transaction within the state



- E-sign is the Boston Harbor...
  - catches all the rest, including but not limited to interstate transactions



# Points of Interest

## Arizona Secretary of State

- <http://www.sosaz.com/pa>

## E-Sign summary

- <http://thomas.loc.gov/cgi-bin/bdquery/z?d106:s.00761:>

## AETA

- <http://www.azleg.state.az.us/ars/44/title44.htm>

## Electronic Signatures Statute (41-132) & Electronic Notarization (41-351)

- <http://www.azleg.state.az.us/ars/41/title41.htm>

## UETA watch

- <http://www.uetaonline.com/>

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